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VERTICAL BOARD GAME AND APPARATUS THEREFOR

Field of the Invention

This invention concerns a strategy game played for amusement and an apparatus and method for playing the game.

Background of the Invention

Strategy games, often played for amusement, are useful for developing abilities such as abstract reasoning, improved memory, mental calculation, logic, and three-dimensional visualization. These skills are developed within a framework of constraints imposed by the rules of the particular game as well as by the apparatus used to play the game. It is desired that as many skills as possible be used in a game to provide an interesting and challenging experience for the players. It is, however, difficult to develop a game that is challenging and interesting but has rules that are easy to learn, and an apparatus that is easy to use. The strategy game described and claimed herein is such a game.

Summary of the Invention

The invention concerns an apparatus for playing a game. The apparatus comprises a plurality of first tokens, each of the first tokens having a substantially similar first identifying characteristic. The characteristic may be a distinguishing color or particular indicia displayed on the tokens. A plurality of second tokens are also included. Each of the second tokens also has a substantially similar second identifying characteristic different from the first characteristic. A plurality of bodies are positioned adjacent to one another, preferably vertically stacked one atop the other. All of the bodies are rotatable relatively to one another about a common axis of rotation. The axis of rotation is preferably oriented substantially vertically.

Preferably, each of the bodies is relatively rotatable with respect to the others by provision of a receptacle positioned at one end and a projection positioned at an opposite end and extending outwardly therefrom. The receptacles and the projections are aligned with the axis of rotation. Each receptacle is sized to receive a projection extending from an adjacent one of the bodies. The projections engage the receptacles when the bodies are positioned adjacent to one another and facilitate rotation of the bodies relative to one another about the common axis of rotation.

Each of the bodies has a plurality of faces facing away from the axis of rotation. Each face has a slot defining a display window for slidably receiving and displaying one of the first and second tokens. The

slots are alignable with one another upon rotation of the bodies. A token on one face of one body is transferable to another face on another body upon alignment of the slot in the one face with the slot in the other face.

Preferably, a base is positioned beneath the lower most one of the bodies. The base has a projection extending outwardly therefrom and aligned with the axis of rotation. The lowermost body has a receptacle positioned at one end thereof. The receptacle receives the projection. The receptacle and the projection facilitate rotation of the lowermost body relative to the base.

The invention also includes a method of playing a game using the above described apparatus. The method includes a sequence of alternating turns in which a first player inserts one of the first tokens in one of the slots or turns one of the bodies relative to another of the bodies to align the slots in the bodies and thereby effect a transfer of one token between the bodies. A second player inserts one of the second tokens in one of the slots or turns one of the bodies relative to another of the bodies to align the slots in the bodies and thereby effect a transfer of one of the tokens between the bodies. The game ends when a predetermined number of either of the first or second tokens are arranged adjacent to one another on one of the bodies or adjacent to one another on a plurality of the bodies or on the bodies in a helical pattern around the axis of rotation.

Brief Description of the Drawings

Figure 1 is a perspective view of a game apparatus according to the invention;

Figure 2 is a longitudinal sectional view taken along line 2-2 of Figure 1;

Figure 3 is a cross-sectional view taken along line 3-3 of Figure 2; and

Figures 4-6 are phantom views of the apparatus showing strategies for winning the game according to the invention.

Detailed Description of the Embodiments

Figure 1 is a perspective view of an apparatus 10 for playing a game according to the invention. Apparatus 10 comprises a plurality of bodies 12, 14, 16 and 18 preferably stacked one atop the other and supported on a base 20. The bodies are rotatable relative to one another about a common axis of rotation 22 as illustrated by the arrow 24. Preferably, the axis of rotation 22 is vertically oriented, consistent with the vertical arrangement of bodies 12, 14, 16 and 18. As best shown in Figure 2, each body has a receptacle 26 at its lower end and a projection 28 extending outwardly from its upper end. Receptacle 26 may be conveniently formed by a drilled bore 27 extending entirely through the bodies 12, 14, 16 and 18. Bore 27 forms the receptacle 26 at the lower end of each body and provides an opening for mounting the projection 28 at the upper end. The projections 28 and receptacles 26 are co-axially aligned with the axis of rotation 22. The receptacles 26 are sized to receive

the projections 28 and thereby facilitate rotation bodies 12, 14, 16 and 18 relative to one another. Base 20 has a projection 28 that engages the receptacle 26 in the lowermost body 12.

5   As shown in Figure 1, the apparatus also includes a plurality of tokens 30. Tokens 30 are preferably rectangular and are divided into two groups, the tokens 32 of a first group (called "first tokens") and the tokens 34 of a second group (called "second tokens").

10 The first tokens 32 have substantially similar characteristics which identify them as being members of the first group. The second tokens 34 also have identifying characteristics that are substantially similar for all of the tokens of the second group but

15 are different from the characteristics of first tokens 32. For example, first tokens 32 may have a first identifying indicia displayed thereon, and second tokens 34 may have a second identifying indicia displayed thereon. Alternately, first tokens 32 may

20 have a first color displayed thereon, while second tokens 34 may have a second color displayed thereon. The distinguishing characteristics, regardless of their type, are represented by different shading in the Figures.

25   First and second tokens 32 and 34 are used in conjunction with bodies 12, 14, 16 and 18 to play the game according to the invention. Each body has a plurality of faces 36 that face outwardly from the axis of rotation 22. In the example shown, there are four

30 bodies, 12, 14, 16 and 18, and four faces 36 on each body, each face 36 being angularly separated from an adjacent face by about 90°. However, there may be

fewer or more bodies and fewer or more faces on each
body depending upon the degree of complexity desired in
the game. For the example having four bodies and four
faces, there is preferably provided eight first and
5   eight second tokens. Each face 36 has a slot 38 that
defines a display window 40 for displaying one of
either the first or second tokens 32 and 34.
Preferably, as shown in Figure 3, the slots 38 have
dove-tail shaped cross sections 42 and the tokens 32
10   and 34 have opposed beveled edges 44 that are
complementary to the dove-tail cross section 42 of the
slots 38. This allows the tokens 32 and 34 to be
slidably received within the slots 38 for display in
the window 40 of each face 36. Other slot
15   configurations are of course feasible.

     Any slot 38 on any face 36 on a body may be
aligned with any slot 38 on any face 36 on an adjacent
body by rotating the adjacent bodies relatively to one
another. This is best illustrated in Figure 1, as body
20   18 is rotated relatively to body 16 to bring slot 38a
(displaying token 32) in body 18 into alignment with
slot 38b (empty) in body 16. Bringing slots 38 into
alignment with one another allows the transfer of a
token 30 from the face of one body to the face of the
25   adjacent body provided the window 40 of the adjacent
body is empty. In Figure 1, rotation of body 18 brings
slot 38a with a first token 32 in its window 40 into
alignment with slot 38b in adjacent body 16. Upon
alignment, gravity pulls first token 32 from slot 38a
30   in body 18 into slot 38b in body 16. If the axis of
rotation 22 of bodies 12, 14, 16 and 18 had a different
orientation, horizontal for example, then the tokens 30
could simply be manually transferred.

In a preferred method of playing the game
according to the invention, the object of the game, as
illustrated in Figures 4-6, is to position a
predetermined number of tokens 30 from the same group
in one of the following arrangements:

(1)   adjacent to one another on the same body
(Figure 4);

(2)   adjacent to one another on different bodies
(Figure 5); or

(3)   in a helical pattern around the axis of
rotation 22 (Figure 6).

In the example shown, the predetermined number of
tokens to be arranged in the winning pattern is four.

The game is played by two players in a sequence of
alternating turns. A first player has the first tokens
32, a second player has the second tokens 34. In their
respective turn, either player may do one of two
things:

(1)   insert a token into a slot on the uppermost
body 18; or

(2)   turn one body relative to the other bodies.

A body may only be turned if there is an open slot
into which a token may drop. Once the token drops,
that player's turn is over. If a body below the top
body is spun, all of the bodies above it must spin with
it, i.e., if body 14 is spun, bodies 16 and 18 spin
with it relative to body 12. Players may only view the
set of faces that are in their direct line of sight.
Thus, in the example shown, there will be three faces
not visible to each player, requiring them to remember
the configuration, calculate the effects of rotation of

a body or insertion of a token and visualize the result of any action. Once a player succeeds in positioning tokens of the same group in one of the three arrangements set out above, that player wins and the game is over.

The game and apparatus according to the invention present a challenging contest for the players that helps develop skills of memory, calculation and three dimensional visualization within the context of simple rules and an easy to use apparatus.

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